



**ADDENDUM #1**  
**SWAN ISLAND BULKHEAD IMPROVEMENTS**

**Date:** November 2, 2015

**Project:** IF&W Swan Island Bulkhead Improvements

**Location:** Richmond, ME

**G&D Project No.:** 2014-104

**Addendum #1:**

This addendum is hereby made a part of the contract documents in response to discussion points and questions submitted through November 2, 2015. Previous iterations of the accompanying documents are to be considered null and void.

The existing shed is to be removed and stored offsite during construction. Bidders are instructed to review the Revised Site Plan, November 2, 2015 and bid in accordance to this addendum.

BID ALTERNATE 2: An alternate construction deadline of April 1, 2017 is proposed as Bid Alternate 2. Bidders are instructed to provide a Lump Sum price for the 2017 completion date on the revised Bid Form that will be provided.

*QUESTION 1:* The precast concrete wall block providers that have been included in the specifications all distribute what I would call a small wall block. With the application that this project is requiring (tidal and up to 16 feet high) I'm surprised that you are not going with a larger block.

**RESPONSE 1: See Revised Section 32 32 23 Segmental Retaining Wall Specifications by Summit Geoengineering Services**

*QUESTION 2:* It is difficult to provide a lump sum price without more information on the design of the wall. A plan view and elevation view for the required wall is requested. If this can't be supplied, then a unit price bid item with an estimated quantity should be supplied.

**RESPONSE 2: See Revised Section 32 32 23 Segmental Retaining Wall Specifications by Summit Geoengineering Services**

**ITEM ATTACHED TO ADDENDUM 1**

Plans attached to Addendum 1:

1. Revised Section 32 32 23 Segmental Retaining Wall Specifications
2. Revised Site Plan, November 2, 2015

**SECTION 32 32 23**  
**SEGMENTAL RETAINING WALLS**

**PART 1 - GENERAL**

**1.00     RELATED DOCUMENTS**

- A.       Drawings and general provisions of the Contract, including General Conditions, Supplementary Conditions, and Division 01 Specification Sections, apply to this Section.

**1.01     DESCRIPTION**

- A.       Provide a segmental retaining wall system, as indicated on the Drawings and as specified herein.
- B.       Segmental retaining wall system shall include the following:
  - 1.    Design and engineering of the system for the locations indicated;
  - 2.    Furnishing and installing the segmental gravity retaining walls with soil reinforcement as indicated.

**1.02     RELATED SECTIONS**

- A.       Sections which directly relate to the work of this Section include:
  - 1.    Section 31 25 13 - EROSION CONTROL
  - 2.    Section 31 05 13 - SOILS FOR EARTHWORK
  - 3.    Section 31 23 16 - EXCAVATION

**1.03     SUBMITTALS**

- A.       Manufacturer's Design: Submit manufacturer's design of retaining wall complete with plans, calculations, and material specifications. Calculations shall be stamped and sealed by a registered professional engineer licensed in the jurisdiction of the Project.
- B.       Manufacturer's Product Data: Submit manufacturer's product data for system including segmental blocks, reinforcing, anchorage devices, capstone units, and adhesives, and all other pertinent products used as part of the retaining wall system.
- C.       Design and construction documents including wall layout plan, cross sections, notes, and details, submit wall design computations using NCMA design manual for segmental retaining walls, 3<sup>rd</sup> Ed. Computations for both seismic and static conditions shall be provided.

**1.04     QUALITY ASSURANCE**

- A.       System Design: Design of retaining wall system shall be performed by a licensed professional engineer with a structural specialty and a licensed professional

geotechnical engineer, both of whom shall be licensed in the state where the project is located. Design of system shall be provided by the manufacturer as part of the scope of this Contract.

System design shall conform to applicable local codes and standards and shall be fully supported by test data, calculations, drawings and details.

- B. Installer Qualifications: Engage an experienced installer who has completed segmental retaining wall installations similar in material, design, and extent to that indicated for this Project. Installer shall be acceptable to the manufacturer and shall provide as part of their qualifications a successful record of in-service performance for comparable retaining wall installations.
- C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated without delaying the Work, as documented according to ASTM E548.

#### **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to Project Site in an undamaged condition.
- B. Store and handle retaining wall units and related materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breaking, chipping, or other causes.
- C. Store accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.
- D. Store and handle geotextiles according to ASTM D 4873.

### **PART 2 - PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following, or approved equal:
  - 1. Retaining Wall Units shall be a precast concrete product.
  - 2. Geotextile Fabrics:
    - a. Mirafi, or approved equal.

#### **2.02 RETAINING WALL UNITS**

- A. Concrete Units: High-strength, regular-weight concrete units, designed for use in segmental retaining walls, complying with ASTM C90, units shall be designed for durability from exposure to fluctuating tidal levels and salt water. The minimum design life shall be 75 years.
  - 1. Provide units with lugs, projections, or holes and

pins that locate successive courses in relation to the course below and which maintains that alignment as backfill is placed, and that interlock with units above and below.

2. Provide units with lugs, projections, holes and pins, or hollow cores for filling with drainage fill to interlock with units above and below.
- B. Colors: Provide units that result in colors of exposed wall surfaces complying with the following requirements:
1. Match submittal samples.
  2. Match colors indicated by referencing manufacturer's standard designations for colors.
  3. Provide selections from manufacturer's full range of colors for materials and products of type indicated. Color will be selected by the Owner or Engineer.
- C. Surface Texture: Provide units with machine-split faces and smooth, as-cast beds.
- D. Shapes: Provide units matching basic shapes and dimensions indicated by referencing manufacturer's pattern designation.
- E. Special Units: Provide corner units, end units, cap units, and other special shapes as necessary to produce retaining walls of dimensions and profiles indicated and to provide indicated textures on exposed surfaces.

## **2.03 INSTALLATION MATERIALS**

- A. Cap Adhesive: Product supplied or recommended by retaining wall unit manufacturer for adhering cap units to wall units below.
- B. Drainage Fill: Washed gravel or washed crushed stone complying with ASTM D448 for Size No. 57.
- C. Filter Fabric: Nonwoven pervious geotextile fabric equal to Mirafi 180N, manufactured by Mirafi, or approved equal.
- D. Drainage Pipe: Polyethylene drainage tubing and fittings complying with AASHTO M 252, Type S, corrugated, with smooth waterway. Provide with corrugated, band-type couplings matching tubing and fittings.
- E. Geotextile Fabric: A woven or non-woven geotextile fabric used for soil reinforcement per manufacturer's and design engineer's requirements.
- F. Geogrid Reinforcement: Manufacturer's recommended polymer grid reinforcement per manufacturer's and design engineer's requirements.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine areas to receive segmental retaining walls and conditions under which walls will be installed, with Installer present, for compliance with requirements for excavation tolerances, condition of subgrades, and other conditions affecting performance of retaining wall system.
  - 1. Do not proceed with installation until unsatisfactory conditions have been corrected.

### **3.02 RETAINING WALL INSTALLATION**

- A. General: Place units according to manufacturer's written instructions. Lay units in running bond, overlapping half units of course below.
  - 1. Form corners and ends by using special units.
- B. Base preparation shall be in general accordance with the geotechnical report prepared by Summit Geoengineering Services Dated September 24, 2015.
- C. Wall installation shall be in accordance with the manufacturer's recommendations and good engineering practice.

### **3.03 FILL PLACEMENT**

- A. General: Comply with requirements of Section 31 05 13 Soils for Earthwork, Section 31 23 16 Excavation, and retaining wall unit manufacturer's written instructions.
- B. Place, spread, and compact fill in uniform lifts for full width and length of embankment as wall is being laid. Begin at back of wall and place and spread fill toward embankment.
  - 1. Use only hand-operated compaction equipment within 36 inches (900 mm) of wall.
  - 2. Compact drainage fill to not less than 95 percent maximum dry density according to ASTM D698.
  - 3. Compact reinforced soil fill to not less than 95 percent maximum dry density according to ASTM D698

### **3.04 CONSTRUCTION TOLERANCES**

- A. Variation from Level: For bed-joint lines along walls, do not exceed 1/4 inch in 10 feet (6 mm in 3 m) or 1 inch in 40 feet (24 mm in 12 m), or more.
- B. Variation from Indicated Batter: For slope of face of wall, do not vary from indicated slope by more than 1/4 inch in 10 feet (6 mm in 3 m).

- C. Variation in Plan Position: For ends and faces of walls in relation to property lines, buildings, and other objects, do not vary from plan dimensions by more than 1 inch (25 mm) or from depicted plan relationship (scaled dimensions) by more than 3 inches (75 mm).
- D. Variation in Linear Wall Line: For walls indicated as straight, do not exceed 1/4 inch in 10 feet (6 mm in 3 m) or 1 inch in 40 feet (24 mm in 12 m), or more from a straight line.

**3.05      FIELD QUALITY CONTROL**

A.      Comply with requirements of Section 31 05 13 Soils for Earthwork and Section 31 23 16 Excavation for in-place soil density testing.

- 1.      In each compacted backfill layer, perform at least one field in-place density test for each 100 feet (30 m) or less of retaining wall length, but no fewer than two tests along a wall face.

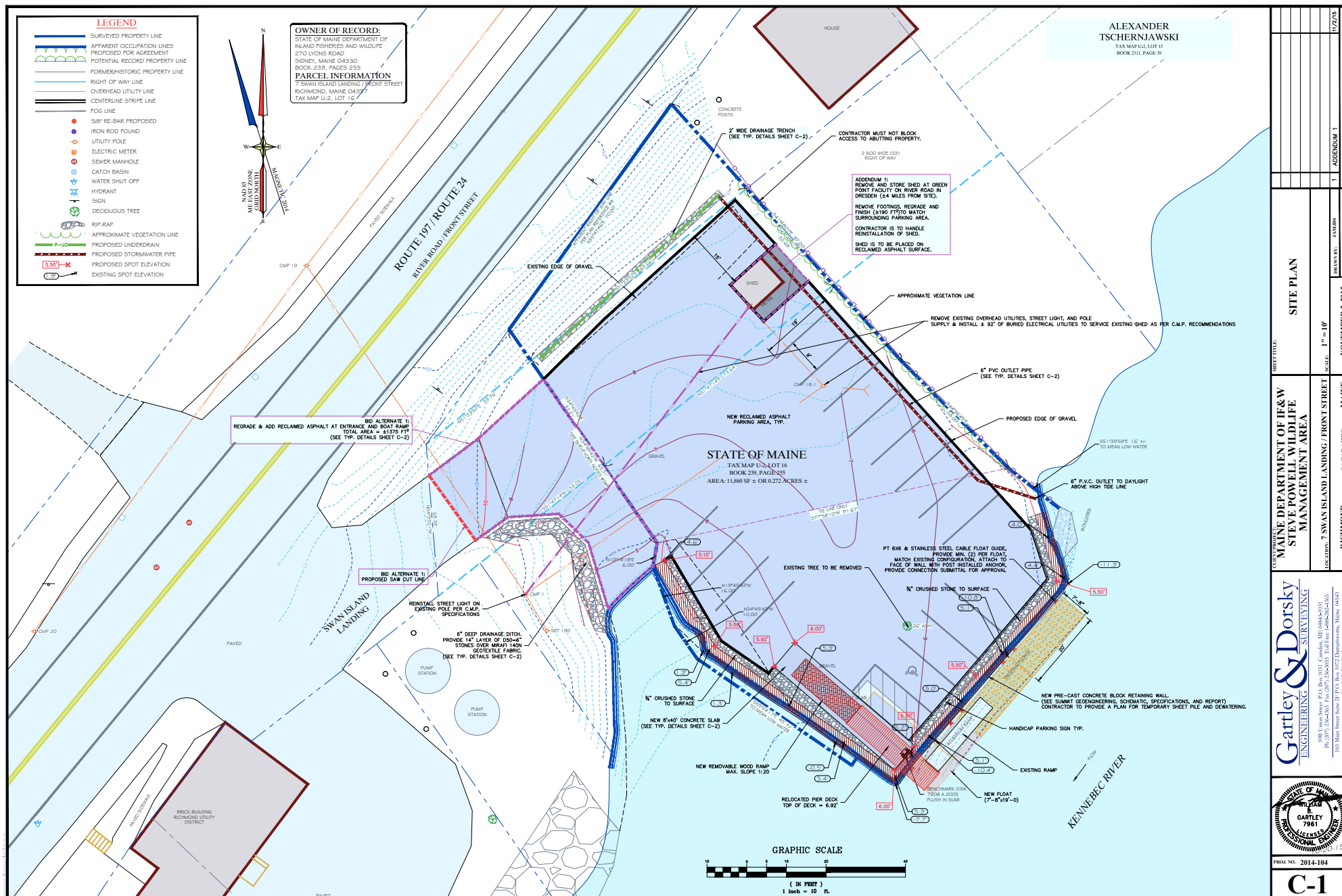
**3.06      ADJUSTING AND CLEANING**

A.      Remove and replace segmental retaining walls of the following description:

- 1.      Broken, chipped, stained, or otherwise damaged units.
- 2.      Segmental retaining walls not matching approved samples and mockups.
- 3.      Segmental retaining walls not complying with other requirements indicated.

B.      Replace in a manner which results in segmental retaining wall matching approved samples and mockups, complying with other requirements, and showing no evidence of replacement.

**END OF SECTION 32 32 23**



**00 41 13  
Contractor Bid Form**

**SWAN ISLAND  
LANDING BULKHEAD IMPROVEMENT**

To: *Valerie Chiang*  
Bureau of General Services  
77 State House Station  
Cross State Office Building, 4<sup>th</sup> Floor  
Augusta, Maine 04333-0077

The undersigned, or "Bidder", having carefully examined the form of contract, general conditions, specifications and drawings dated *October 20, 2015*, prepared by *Gartley & Dorsky Engineering & Surveying* for *Swan Island Landing Bulkhead Improvements*, as well as the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the Base Bid amount of:

\_\_\_\_\_ Dollars

\$ \_\_\_\_\_

Allowances *are included* on this project.

1. Alternate bids *are included* on this project.  
Any dollar amount line below that is left blank by the Bidder shall be taken as a bid of \$0.00.  
Alternate Bid prices are as follows:

**Alternate No. 1A:** Regrade and add reclaimed asphalt at entrance and boat ramp, April 1, 2016 Project Completion. Total area = ±1,375 ft<sup>2</sup> \$ \_\_\_\_\_

**Alternate No. 1B:** Regrade and add reclaimed asphalt at entrance and boat ramp, April 1, 2017 Project Completion. Total area = ±1,375 ft<sup>2</sup> \$ \_\_\_\_\_

**Alternate No. 2:** Project Completion date April 1, 2017 \$ \_\_\_\_\_

2. The Bidder acknowledges receipt of the following addenda to the specifications and drawings:

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_



**00 41 13**  
**Contractor Bid Form**

3. Bid security *is required* on this project.  
The Bidder shall include a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.
4. Filed Sub-bids *are not required* on this project.
5. The Bidder agrees, if this bid is accepted by the Owner, to sign the designated Owner-Contractor contract and deliver it, with any and all bonds and affidavits of insurance specified in the Bid Documents, within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the day following the holiday or other closure day, Saturday or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

6. This bid is hereby submitted by:

Signature: \_\_\_\_\_

Printed name and title: \_\_\_\_\_

Company name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City, state, zip code: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email address: \_\_\_\_\_

State of incorporation,  
if a corporation: \_\_\_\_\_

List of all partners,  
if a partnership: \_\_\_\_\_